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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/023,043	12/17/2001	David E. McDysan	RIC01059	5663
25537	7590	10/07/2005		
MCI, INC 1133 19TH STREET NW 4TH FLOOR WASHINGTON, DC 20036			EXAMINER GYORFI, THOMAS A	
			ART UNIT 2135	PAPER NUMBER

DATE MAILED: 10/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/023,043

Applicant(s)

MCDYSAN, DAVID E.

Examiner

Tom Gyorfi

Art Unit

2135

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 June 2005 and 16 August 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☒ Other: See Continuation Sheet.

Continuation of Attachment(s) 6). Other: copy of Office Action mailed 5/13/05.

DETAILED ACTION

1. Claims 1-21 remain for examination. The correspondence filed 8/16/05 did not add, amend, or cancel any claims.
2. A faxed correspondence was filed on 6/8/05 informing the Office that the RFC761 reference, which had been submitted as part of an Advisory Action mailed 3/9/05, had not been officially recorded on a PTO-892 form. This oversight has now been rectified, and a copy of said form has been included in this Action.

Response to Arguments

3. Applicant's arguments filed 8/16/05 have been fully considered but they are not persuasive.

Applicant declares, "*Independent claim 21 and dependent claims 2, 10, and 17 are not addressed in the Office Action's rejection of the claims. Applicant respectfully submits that the features recited by these claims are neither disclosed nor suggested by Seid et al., and are thus allowable over Seid et al. Moreover, MPEP § 706.02(j) indicates that: [i]t is important for an examiner to properly communicate the basis for a rejection so that the issues can be identified early and the applicant can be given fair opportunity to respond.*" Thus, the rejections of these claims should be withdrawn. Applicant further respectfully requests that, if a next Office Action maintains a rejection on these claims, that the next Action be made non-final, to better provide Applicant a 'fair opportunity to respond.'" This is incorrect: the listed claims were addressed on page 5 of the previous Office Action, which was mailed on 5/13/05, as having been rejected under 35 USC 102(b) in view of the Seid reference. An additional copy of that Office Action has been included herein to particularly point out this fact. Alternatively, the full text of all issued Office Actions

regarding the instant application has been available to Applicant through the Private Patent Application Information Retrieval (PAIR) system, as noted in the conclusion of this and preceding Actions. Furthermore, MPEP § 706.02(j) pertains to "Contents of a 35 U.S.C. 103 Rejection", and is therefore irrelevant as all claims were rejected under 35 U.S.C. 102(b). Even were this regulation applicable to the present situation, Examiner would have been in compliance as noted above. It is incumbent on Applicant to properly manage all documentation received from this Office. Examiner respectfully submits that the finality of this Action is proper.

Applicant further argues, *"Nowhere does Seid et al. disclose or suggest 'a network system that resists denial of service attacks on an access link to a destination host belonging to a virtual private network (VPN, said network system comprising: one or more egress boundary routers having connections to an access network including the access link, wherein said one or more egress boundary routers transmit intra-VPN traffic toward the destination host from source: within the VPN and extra-VPN traffic toward the destination host from sources outside the VPN within separate access network logical connections for intra-VPN and extra-VPN traffic, respectively' as recited by claim 1, nor does the Office Action contend that these specific features are disclosed by Seid et al. Thus, the rejection of claim 1 should be withdrawn."* Examiner disagrees with this contention. The Microsoft Computer Dictionary defines a "router" as "an intermediary device on a communications network that expedites message delivery". Seid clearly discloses the use of routers, under at least the broadest possible definition accepted in the art (see col. 7, line 62 – col. 8, line 13, and Figure 3, Nodes A-D). Furthermore, the definitions for "boundary router" and "edge router" as understood by those of ordinary skill in the art (see attached references) establish that there is no inherent structural difference between these terms,

and that any device capable of being a router is inherently capable of being a boundary router, such as those disclosed in the instant application. Applicant did not define "boundary router" within the instant application in any way that would differentiate Applicant's use of the term from the commonly understood definition as noted above.

Additionally, the Microsoft Computer Dictionary defines "denial of service attack" in part as one that "overwhelms an Internet server with connection requests that cannot be completed...[o]ne type of attack, known as a SYN flood, inundates the server's entry ports with false messages." Clearly, it was well known in the art that denial-of-service attacks are by definition an attempt to create excessive network congestion so as to render an Internet-enabled computer inaccessible. This is precisely what the Seid reference is designed to defend against (col. 3, lines 10-15); indeed, it appears to be broader in scope than what is claimed by Applicant, as Seid will function without regard to the motivation behind the network congestion, be it malicious or unintentional. Since the prior art structure is capable of performing the intended use, then it meets the claim.

Claim Rejections - 35 USC § 102

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claims 1-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Seid et al. (U.S. Patent 5,768,271).

Referring to Claim 1:

Seid discloses a network system that resists denial of service attacks on an access link to a destination host belonging to a virtual private network (VPN), said network system comprising:

one or more egress boundary routers having connections to an access network including the access link (Figs. 1-3), wherein said one or more egress boundary routers transmit intra-VPN traffic from sources within the VPN and extra-VPN traffic from sources outside the VPN within separate access network logical connections for intra-VPN and extra-VPN traffic (Figure 7, and col. 4, lines 1-10); and

a plurality of ingress boundary routers coupled to the one or more egress boundary routers for communication utilizing a network-based VPN protocol that logically partitions intra-VPN and extra-VPN traffic, such that denial of service attacks on said access link originating from sources outside the VPN can be prevented (col. 2, line 56 – col. 3, line 15).

Referring to Claim 9:

Seid discloses a network system, comprising: an access network having an access link to a destination host belonging to a virtual private network (VPN), wherein said access network supports a first logical connection for intra-VPN traffic from sources within the VPN and a second logical connection for extra-VPN traffic from sources outside the VPN (Figure 7, and col. 4, lines 1-10); one or more egress boundary routers having connections to the access network, wherein said one or more egress boundary

routers transmit intra-VPN traffic toward the destination host via the first logical connection and transmit extra-VPN traffic toward the destination host via the second logical connection (Fig. 3; col. 8, lines 13-57); a plurality of ingress boundary routers coupled to the one or more egress boundary routers for communication utilizing a network-based VPN protocol that logically partitions intra-VPN and extra-VPN traffic (Ibid, and also col. 7, line 62 – col. 8, line 13), such that denial of service attacks on said access link originating from sources outside the VPN can be prevented (col. 3, lines 10-15).

Referring to Claim 16:

Seid discloses a method of protecting an access link to a destination host belonging to a virtual private network (VPN) against denial of service attacks, said method comprising: in an access network including the access link, providing a first logical connection for intra-VPN traffic from sources within the VPN and a second logical connection for extra-VPN traffic from sources outside the VPN (Figure 7, and col. 4, lines 1-10); communicating, from a plurality of ingress boundary routers to one or more egress boundary routers, intra-VPN and extra-VPN traffic destined for said destination host, wherein said intra-VPN traffic and said extra-VPN traffic are transmitted utilizing a network-based VPN protocol that logically partitions intra-VPN and extra-VPN traffic (col. 7, line 62 – col. 8, line 15); transmitting intra-VPN traffic from said one or more egress boundary routers toward the destination host via the first logical connection, and transmitting extra-VPN traffic from said one or more egress

boundary routers toward the destination host via the second logical connection (col. 2, line 56 – col. 3, line 15), such that denial of service attacks on said access link originating from sources outside the VPN can be prevented (col. 3, lines 10-15).

Referring to Claim 21:

Seid discloses a method for resisting denial of service attacks on an access link to a destination host included in a VPN, the method comprising the steps of: intra-VPN traffic flowing from sources included in the VPN (Figure 7, and col. 4, lines 1-10); extra-VPN traffic flowing from sources outside the VPN (Ibid); assigning a first priority level to traffic intra-VPN traffic flowing from sources included in the VPN; assigning a second priority level to traffic extra-VPN traffic flowing from sources outside the VPN; and granting, to traffic having the first priority level at the access link, precedence of access to the destination host over traffic having the second priority level (col. 10, lines 40-65; col. 12, lines 20-30).

Referring to Claims 2, 10, and 17:

Seid discloses the limitations of Claims 1, 9 and 16 above. Seid further discloses a Differentiated Services network coupling at least one of the plurality of ingress boundary routers and at least one of the one or more egress boundary routers (Figs. 1-3; observe that there exists a node that is contained within multiple VPNs and must therefore necessarily have the means to differentiate traffic in accordance with the VP-CIRs as described in col. 5, line 62 – col. 6, line 13).

Referring to Claims 3 and 11:

Seid discloses the limitations of Claims 1 and 9 above. Seid further discloses a plurality of customer premises equipment (CPE) edge routers each coupled to a respective one of said plurality of ingress boundary routers (col. 5, lines 40-60).

Referring to Claim 4:

Seid discloses the limitations of Claim 1 above. Seid further discloses further comprising the access network (Figs. 1-3).

Referring to Claims 5 and 12:

Seid discloses the limitations of Claims 4 and 9 above. Seid further discloses a customer premises equipment (CPE) edge router to the access link (col. 5, lines 40-60).

Referring to Claims 6, 13, and 18:

Seid discloses the limitations of Claims 5, 12 and 16 above. Seid further discloses said CPE edge router having a physical port coupled to said access link, said physical port implementing a first logical port for intra-VPN traffic and a second logical port for extra-VPN traffic (Figure 4).

Referring to Claims 7, 14, and 19:

Seid discloses the limitations of Claims 1, 9 and 16 above. Seid further discloses at least one of said plurality of ingress boundary routers implements a plurality of tunnels that logically partition intra-VPN and extra-VPN traffic (column 12, lines 20-30).

Referring to Claims 8, 15, and 20:

Seid discloses the limitations of Claims 1, 9 and 16 above. Seid further discloses said one or more egress boundary routers provide a plurality of different qualities of services to said intra-VPN traffic (col. 5, line 62 – col. 6, line 4).

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- U.S. Patents 6,473,863 and 6,738,910 issued to Genty et al.
- U.S. Pre-Grant Publication 2002/0073337, invented by Ioele et al.

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the

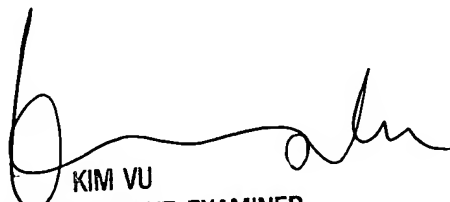
shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tom Gyorfi whose telephone number is (571) 272-3849. The examiner can normally be reached on 8:30am - 5:00pm Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached on (571) 272-3859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TAG
9/20/05


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